

R. H. DAY

PACIFIC SEABIRD GROUP



BULLETIN

Vol. 4

Winter 1977

No. 2

PACIFIC SEABIRD GROUP

The Pacific Seabird Group (PSG) was formed in 1972 out of a need for better communication among Pacific seabird researchers. The Group acts to coordinate and stimulate the field activities of its members and to inform its membership and the general public of conservation issues relating to Pacific seabirds and the marine environment. Current activities include the development of standard techniques and reporting forms for colony censusing, pelagic observations, beached bird surveys, and coastal surveys. Policy statements are issued on conservation issues of critical importance. While the PSG's primary area of interest is the West Coast of North America and adjacent areas of the Pacific, it is hoped that seabird enthusiasts in other parts of the world will join and participate in the PSG. Annual dues for membership in the PSG are \$5.00 and are payable to the Treasurer (address on back cover). Members receive the PSG Bulletin.

PACIFIC SEABIRD GROUP BULLETIN

The Pacific Seabird Group Bulletin is issued in the spring or summer, and fall or winter of each year. It contains news of interest to PSG members. Regional reports include a listing of current research and information on seabird conservation. The PSG Bulletin does not act as an outlet for the results of scientific research, but welcomes articles on seabird conservation, seabird research activities, or other topics that relate to the objectives of the PSG. Articles and all other materials should be submitted to the Editor. Back issues of the PSG Bulletin (starting with Spring 1972) are available from the Treasurer for \$2.50 each. Some issues are already out of print.

COMMITTEE COORDINATORS

Pelagic observations:

Gerald A. Sanger
U. S. Fish and Wildlife Service
800 A Street, No. 110
Anchorage, Alaska 99501

Coastal surveys:

Robert Gill, Jr.
U. S. Fish and Wildlife Svc.
800 A Street
Anchorage, Alaska 99501

Beached bird surveys:

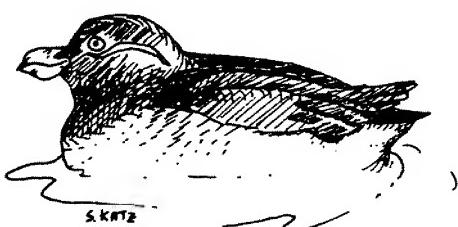
David G. Ainley
Pt. Reyes Bird Observatory
4990 State Route 1
Stinson Beach, Calif. 94970

Publications:

Daniel W. Anderson
Div. Wildlife and Fisheries
University of California
Davis, California 95616

Colony censusing:

David A. Manuwal
College of Forest Resources
University of Washington
Seattle, Washington 98195



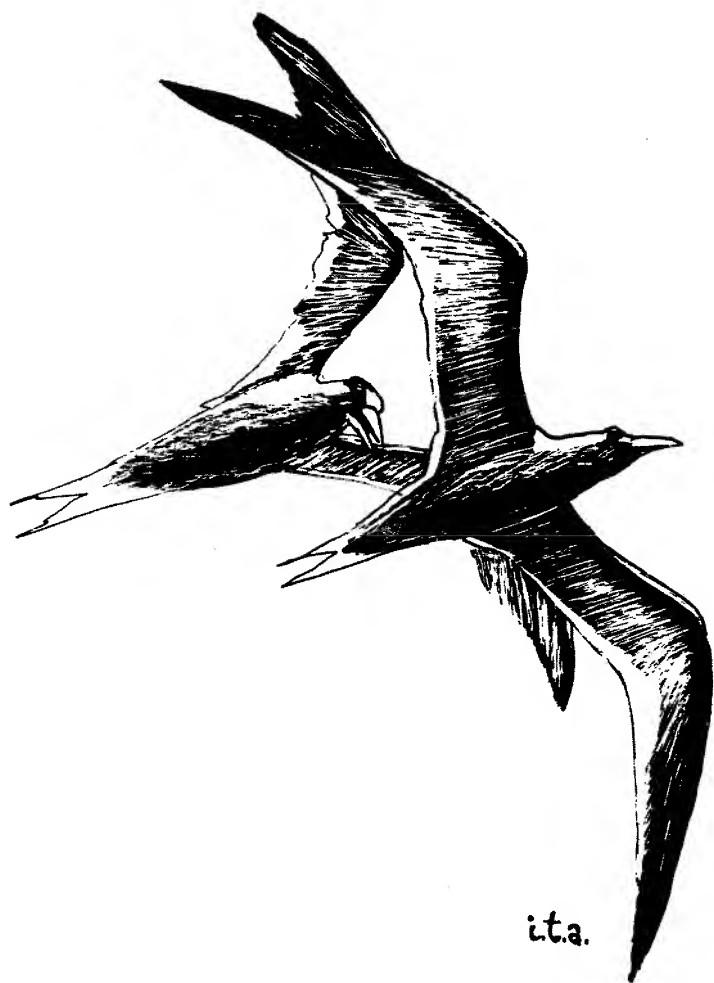
PACIFIC SEABIRD GROUP
BULLETIN

VOLUME 4

WINTER 1977

NUMBER 2

THE CHAIRMAN'S PAGE.....	1
PACIFIC SEABIRD GROUP NEWS.....	2
Election of New Officers.....	2
Committee Report, Publications.....	2
Items of Interest.....	2
OUTGOING EDITOR'S COMMENTS.....	2
OTHER SEABIRD GROUPS.....	3
MEXICAN ORNITHOLOGICAL GROUP.....	4
BULLETIN BOARD.....	5
Some Recent Seabird Publications of Interest.....	5
Color-marked and Color-banded Shorebirds.....	5
REGIONAL REPORTS.....	6
Washington.....	6
Northern California.....	7
Hawaii.....	8
East Coast, U. S.	10
GENERAL NOTES.....	11
Research Plan for the Study of Seabird Resources in the Northwestern Hawaiian Islands. Robert. J. Shallenberger.....	11
Status of the Short-tailed Albatross on Torishima in 1976/77. Hiroshi Hasegawa.....	13
A Review of Field Guides for Use in the North and Central Pacific. David G. Ainley.....	16



THE CHAIRMAN'S PAGE

The year 1977 was one of ups and downs for the PSG. After many frustrations and the hard work of Frank Pitelka, PSG is now in a position to publish last year's symposium on the biology of shorebirds. Some of our officers have transferred to new locations which has resulted in a temporary lapse in our planning for the annual meeting and a brief interruption in PSG's financial management. Despite these problems, we are more than financially solvent.

It is time to reflect on just where PSG stands after four years. The intense interest and dedication of the original PSG members has lessened somewhat, but this is to be expected of any new organization which has relatively specialized goals and membership. We now need to attract (or coerce) new members to assume the leadership roles in the Group. All of us are "too busy" but it seems only fair to spread the duties around a bit. Those of you wanting to take a more active role in the affairs of the Pacific Seabird Group should contact the chairman. The only requirements are dedication and willingness to learn.

The PSG Bulletin continues to be a valuable reference source for all who want to know what is going on in the area of marine birds. It is read in at least 18 foreign countries as well as in North America. We need to maintain a high quality, informative publication.

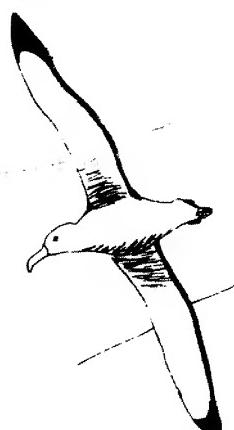
Our membership reached a peak of around 250 last year and has remained at this level despite several new memberships. Some of the original members have not renewed their memberships. The following is a geographical summary of our membership:

<u>The U. S. and Canada</u>		<u>Foreign Countries</u>			
California	115	Japan	5	Switzerland	2
Other States	74	England	5	Chile	1
Alaska	49	New Zealand	4	Costa Rica	1
Other Canada	24	Denmark	3	Holland	1
Washington	21	Australia	2	Hong Kong	1
British Columbia	13	Mexico	2	Malaysia	1
Oregon	12	Norway	2	Wales	1
Hawaii	8	Scotland	2	W. Caroline I.	1
		So. Africa	2	W. Germany	1

As the current wave of funding for marine bird research comes to an end, I hope that all of you will continue to support and play an active role in the Pacific Seabird Group.

I would like to thank the other officers and members of the Executive Council for their assistance during 1977.

David A. Manuwai
Chairman
November 1977



PACIFIC SEABIRD GROUP NEWS

I. Election of New Officers.

The following persons were elected as officers and members of the Executive Council for 1978 (95 ballots were received):

<u>Office</u>	<u>Name</u>	<u>No. Votes</u>
<u>Officers:</u>		
Chairman	D. W. Anderson	93/1
Vice-Chairman	R. W. Schreiber	87/3
Treasurer	D. A. Manuwal	94/1
Secretary	S. Harris	86/3
<u>Regional Representatives:</u>		
British Columbia	K. Vermeer	6/0
Washington	L. L. Leschner	6/0
Oregon	P. Sekora	8/0
So. California	R. W. Schreiber	13/1

Jane P. Church
Elections Committeee
December 1977

II. Committee Report, Publications:

The shorebird symposium from last year's meeting (see PSG Bulletin 4(1):14-16) will be published in Pacific Coast Avifauna. The U. S. Fish and Wildlife Service has provided \$6000.00 to help meet the publishing costs; and the editor, Frank A. Pitelka, states that a definitive Table of Contents will soon be mailed to all authors and interested persons. He expects that final editing will be completed by next summer. At that time, the final manuscript will be submitted to the PCA editor.

The committee met during the last American Ornithologists' Union meeting at Berkeley, in late-August. All members agreed that PSG will not get into the publication of a symposium each year, but rather support such publications as funds and quality materials become available. The shorebird symposium will be an excellent start, and PSG members are urged to think about worthwhile symposia for future meetings.

Daniel W. Anderson
Chairman, Publications Committee
December 1977

III. Items of Interest.

OUTGOING EDITOR'S COMMENTS--The Editor's task is no easy one, although the job can be rewarding--and even fun. The PSG is an unusual group in that its members work well together and share very common interests in research and conservation. Thus, obtaining satisfactory materials for the last two volumes has been both rewarding and pleasurable. Here,

I wish to express my thanks to all those PSG members who have contributed to Volumes 3 and 4.

Our new Editor is James G. King, U. S. Fish and Wildlife Service, P. O. Box 1287, Juneau, Alaska 99801. Good luck, Jim; and you PSG members, please send all future PSG Bulletin materials to him.

OTHER SEABIRD GROUPS--Interest in marine bird ecology and conservation is increasing worldwide, and we suggest that PSG members become involved in other seabird groups. We repeat here, for the benefit of our members, a section from the Seabird Group Newsletter (January 1977, No. 22):

"The three other seabird groups have all recently produced impressive publications. The Pacific Seabird Group Bulletin Volume 3, Number 1 for Summer 1976 is a 34 page document containing a variety of news and business and eighteen pages of abstracts of papers given at the 1975 annual meeting in California on 12th-13th December. The thirty-three contributions embrace the entire spectrum of seabird topics and include the first reports of a considerable amount of new work, so that anyone who wishes to keep abreast of the field is virtually obliged to at least see and preferably obtain the Bulletin. A study of these proceedings makes one wonder whether it is time we also initiated our own conference; the Pacific Group also differs from us in guarding its independence and taking a much stronger line over conservation issues.

"The Australian Seabird Group has now been reconstituted as the Australasian Seabird Group, also including New Zealand, and has celebrated its enlargement with the production of an equally magnificent enlarged seventh Newsletter. The contents still include a good deal of material copied from elsewhere, notably ourselves (without permission, not that we mind). There is also a list of seabirds from Papua, New Guinea and the Solomons by Mike Carins lacking a good deal of material collected by the Royal Navy Bird Watching Society among other things, a note of the first recovery of a South Polar Skua (Catharacta maccormicki) in the North Atlantic, from Greenland, by Peter Fullager, so that local report editors will now have to scrutinise bonxie records more carefully, a couple of reports on birds seen at sea off southeast Australia, and a list of the thirty accounts of seabird islands published in the Australian Bird Bander. It is hoped that this seabird group will now start to produce more original work of its own. Its addresses are PO Box 12397, Wellington North, New Zealand and PO Box 65 Civic Square, ACT 2608 Australia; the current subscription is not given.

"The newly-founded South African Seabird Group has produced the first number of its own small web-offset journal, The Cormorant, with twenty pages. It contains nine original short notes, and reviews, a list of recent literature, and accounts of various projects. So far these mostly follow familiar lines. This seabird group already has about forty-five members, but has not established a formal committee. The subscription is R2.00,

which should be sent to John Cooper, Convener, South African Seabird Group, c/o Percy Fitzpatrick Institute, University of Cape Town, Rondebosch 7700, South Africa.

"In general, it is a pleasure to read these newsletters, which still retain some of the freshness of our early days. They all also suffer from our own early failing of excessive verbosity over business matters. As the years pass one becomes increasingly impatient with so much wordiness and anxious to get at the real news. This is not always easy to disentangle, and more attention to the arrangement of the material might sometimes be useful. I hope that enough copies are being produced of these periodicals, since it becomes rather embarrassing to run out of copies as the demand begins to grow, though after a year or two it normally dies away. So far the main items of lasting interest are all short notes, reports of research, reviews, abstracts of talks, lists or references, which reinforces my growing opinion that much of the material might with benefit be brought together in one publication so that everyone could see and profit from it."

That was written by W. R. P. Bourne, and we thank you. The least we can do is to plug The Seabird Group. Subscriptions are 1.00 (British pound) and can be sent to the Honorary Treasurer, c/o RSBP (Royal Society for Bird Protection), The Lodge, Sandy, Bedfordshire, Great Britain.

Number 2 of The Cormorant is also now available. It contains 14 articles on marine birds, projects and business matters, reviews, correspondence, recent literature, and new members. Each issue gets better, and one wonders if the time is not approaching where the various seabird groups need to begin thoughts of some kind of a combined publication (as suggested by Bill Bourne)--a bulletin or even perhaps a journal (such as North American Bird Bander) devoted to marine bird ecology, management, and conservation. At least we ought to consider the alternatives for future discussion.

MEXICAN ORNITHOLOGICAL GROUP--A group called the Sociedad Mexicana de Ornitología, A. C. (SMO) has recently published a newsletter entitled Centzontle. Centzontle is an ancient aztec symbol and it represents this relatively new Mexican ornithological group. The SMO has existed since 1971, but there appears to be much recent interest in ornithology among Mexican scientists. Their first symposium held in 1976 included several papers on seabirds, and a second ornithological symposium was held in October of 1977.

Further information, subscription, and membership notices can be obtained from Carlos Jaurez Lopez, Director de la Sociedad Mexicana de Ornitología, A. C., Apartado Postal 70-300, Mexico 20, D. F., Mexico.

Daniel W. Anderson
Editor
December 1977

BULLETIN BOARD

SOME RECENT SEABIRD PUBLICATIONS OF INTEREST--

Bourne, W. R. P. 1976. Seabirds and pollution. Pp. 403-502, in: R. Johnston (editor). Marine Pollution. Academic Press, New York and London. 729 pp. (This is a long and detailed, excellent review of oil pollution, toxic chemicals, artefact pollution, and micro-organisms/parasites in marine birds on a worldwide basis.)

Dolensek, E. P., and J. Bell. 1977. Help! A step-by-step manual for the care and treatment of oil-damaged birds. Animal Kingdom (Suppl.):1-39. (This booklet is available from the New York Zoological Society, Publications Dept., Bronx, New York 10460, at a cost of 25-50¢ each depending on the number ordered. If deoiling has to be done, I suppose everybody interested should know how to do it. Too bad that so many conservationists and managers accept so readily the inevitability of oil spills in the first place!)

Dunnet, D. M. (chairman) et al. 1977. The report of a working group on ecological research on seabirds. Nat. Environ. Res. Council Publ. Ser. C (18):1-48. (A comprehensive and detailed review of ecological research on seabirds in the United Kingdom.)

vanTets, G. F. (convener) and F. Kinsky (chairman). 1976. Symposium No. 11, Seabirds: distribution, speciation and ecological diversification at sea. Proc. Int. Ornithol. Congr. 16:697-746.

COLOR-MARKED AND COLOR-BANDED SHOREBIRDS--During the summer of 1977, biologists from the U. S. Fish and Wildlife Service color-marked several species of shorebirds to study migrations and movements. Two species will be seen in California, the dunlin and western sandpiper. All people in the field are encouraged to report their sightings of these birds. Most were dyed yellow, banded with red and blue color bands, and banded with a USF&WS aluminum band. The yellow color has probably mostly molted out by now, but the birds still retain their leg bands. These birds were all marked at Nelson Lagoon on the Alaska Peninsula. Data on their movements will be of great value, so all sightings should be reported. Please report species, date, location, your name, positions of the bands, and any other information of interest. Send your information to Robert Gill, Jr., U. S. Fish and Wildlife Service, 800 A St., Anchorage, Alaska 99501.

REGIONAL REPORTS

- I. Alaska. No report received.
- II. British Columbia. No report received.
- III. Washington.

CURRENT RESEARCH--

- (1) University of Washington (Wildlife Science Group, College of Forest Resources). Colony attendance and habitat selection in fork-tailed storm petrels. Ted Simmons (MS thesis).
- (2) University of Washington (Department of Zoology). Effects of foraging by seabirds on intertidal marine invertebrate populations. John Landahl (PhD. thesis).
- (3) Washington State University (Department of Zoology). Continuing studies of parent-offspring interactions in ring-billed gulls, especially the role of chick vocalizations in eliciting various parental responses. Donald Miller and Michael Conover.
- (4) Washington State Department of Game (Environmental Management).
 - (A) Coastal zone habitat study. An inventory of birds and mammals along Puget Sound, the Straits of Juan de Fuca, and the Washington Coast. Thomas Juelson and Ronald Hirschi.
 - (B) Padilla Bay study. An inventory of natural resources in Padilla Bay and an examination of past, present, and future land use patterns. Thomas Juelson and Steve Sweeney.
 - (C) Columbia River vegetation and wildlife study. This project includes a study of the effect of power peaking on ring-billed and California gulls, Caspian terns, and Forster's terns nesting on islands in the Columbia River. James Tabor and Bruce C. Thompson.
- (5) Battelle Northwest Laboratories, Ecosystems Dept., 6652-I Building, 600 Area, Richland, WA 99352.
 - (A) Weekly surveys of bird use of ponded habitats in SW Washington were conducted over a 35-month period. Data were gathered on shorebird seasonal use patterns of ponds. Data are presently being analyzed to determine the relationships that exist between a variety of biotic and abiotic parameters and shorebird density and distribution patterns on the ponds.

- (B) A banding program was initiated in 1956 to study the movements of ring-billed and California gulls nesting on Columbia River islands in SE Washington. Over 13,000 gulls have been banded to date and over 400 band returns have been accumulated. These data are being analyzed to determine survival rates and movements.
- (C) In 1976, a study on the nesting ecology of ring-billed gulls, California gulls, and Forster's terns was begun. Data are being gathered on behavior, productivity, movements, and nest-site selection, as well as composition and vegetational structure of the islands. These data will be analyzed to determine those factors which affect the partitioning of nesting habitats among gulls and terns.

Above studies by R. E. Fitzner.

ITEMS OF INTEREST--

Senator Warren Magnuson essentially limited all supertanker facilities in Washington State to points west of Port Angeles when he attached an amendment to a marine mammals bill. This issue has been hotly contested in Washington State over the past year. A legislature-sponsored bill restricting supertanker traffic was vetoed by Governor Dixie Ray, and oil companies are fighting other restrictions in court. Senator Magnuson's action has eliminated some of the confusion about oil in Puget Sound.

Lora Lynn Leschner

IV. Oregon. No report received.

V. Northern California.

CURRENT RESEARCH--Research programs remain about the same as reported in the last PSG Bulletin with one major exception. The Energy Research and Development Agency (ERDA or whatever they are called now) has approved for funding a project to develop methodology for the assessment of impact by catastrophic mortality (as in an oil spill) on populations of birds wintering on inshore and estuarine waters. The project, if and when funds become available, will be conducted by the Pt. Reyes Bird Observatory in the Pt. Reyes-Gulf of the Farallones area of California by David G. Ainley and Gary W. Page.

ITEMS OF INTEREST--Conservation items also remain unchanged since my last report, with one major exception. Interest is mounting over the fate of Mono Lake in eastern California and Nevada, which is drying up--thanks to Los Angeles' water "needs." This area is also very near geothermal areas that may be developed in the future. While not a marine environment, Mono Lake is the breeding site for a large population of California gulls and snowy plovers. It is also a stopping-over site for many thousands of grebes and phalaropes on their way to coastal marine waters for the winter. The loss of this lake may thus have an important impact on some marine bird populations.

David G. Ainley

- VI. Southern California. No report received.
- VII. Mexico. No report received.
- VIII. Hawaii.

CURRENT RESEARCH AND RESEARCHERS--

- (1) Edwin H. Bryan, Jr. has recently completed an annotated bibliography of seabirds of the central and north Pacific Ocean while on temporary appointment to the U. S. Fish and Wildlife Service in Honolulu. The bibliography is now being typed, but will not be ready for distribution for several months. The bibliography was prepared in anticipation of involvement of the USFWS in cooperative studies of seabirds on the Northwestern Islands (see conservation notes in the last section of this bulletin).
- (2) Vernon Byrd began work in Hawaii in September 1977 as assistant Refuge Manager on Kauai for the USFWS. He is residing at Kilauea Point, where he plans to conduct long-term life history studies within the wedge-tailed shearwater colony at the point. Some work on this species was initiated by the former assistant Refuge Manager, C. Fred Zeillemaker. Fred has now taken the Refuge Manager position at Crescent Lake National Wildlife Refuge in Nebraska. Together with Rick Coleman (Refuge Biologist), Fred and Vern are also compiling data on numbers and distribution of Newell's shearwater road kills on Kauai. Hopefully, this will shed some additional light on the location of inland nesting areas.
- (3) Doug Forsell, a USFWS biologist, completed a four-week trip on the USCGC Mallow, visiting Baker NWR, Howland NWR, Jarvis NWR, Samoa Id., Canton Id., Ponape Id., and Majuro Id. This is an annual census trip to the islands, and pelagic censuses are conducted as well. Of particular importance on this trip was the elimination of more than 100 feral cats from Jarvis Island. Predator control on these outlying islands is a high priority item to the USFWS, but it is complicated by irregular transportation opportunity.
- (4) Brent Giezentanner, former assistant Refuge Manager of the Hawaiian Islands NWR, replaced Palmer Sekora as Refuge Manager in September 1977. Palmer is now at William Findley NWR in Oregon. Brent will be assisted beginning in January by Elisabeth Cummings, formerly of the Farallon Islands NWR off California. Liz will be primarily involved with the Northwestern Islands.
- (5) Craig Harrison was selected in November to fill a new biologist position with the USFWS in Honolulu. His principal activity will be implementation of seabird research in the Northwestern Islands, as part of a triparty cooperative study. Craig was previously involved in OBS studies off the Alaska Coast, involved in aerial surveys and shipboard surveys.

- (6) Larry Hirai completed avifaunal studies on the island of Lanai in late 1976 and recently reported his study results. The emphasis of the program was an assessment of the potential impact on non-target organisms caused by USDA fruit fly eradication projects. In addition to adding important data on the common seabirds of Lanai, Larry documented the existence of a dark-rumped petrel colony on the island. These petrels were believed extirpated by pigs and cats earlier in this century.
- (7) Brian and Patty Johnson completed six months of monk seal research on Laysan Island in September 1977. They are working on a study supported by the Marine Mammal Commission, in association with NMFS and USFWS. They are planning to return to Laysan in January 1978 and will be cooperating in seabird research (in their spare time) over the next three years.
- (8) Cameron Kepler is now on the island of Maui with the USFWS. He has been participating in forest bird survey work with J. Michael Scott (a former PSG Chairman) in the island of Hawaii. He plans a research program on Maui that includes some seabird work, especially the dark-rumped petrel. The largest petrel colony in the state is within Haleakala Crater on Maui. He has been studying road kills on the dark-rumped petrel in recent months. Cameron formerly conducted long-term studies on the blue-faced booby on Kure Atoll with the POBSP.
- (9) Robert Shallenberger completed a seabird research plan for the Northwestern Islands for the USFWS from March to June 1977. He recently completed an ornithological survey of Hawaiian wetlands for the Corps of Engineers. Bob has accepted a position as a terrestrial ecologist for the Environmental Branch of the Corps, to begin in January 1978. Independent environmental consulting and wildlife photography will continue under the present company name, Ahuimanu Productions.
- (10) Causey Wittow, University of Hawaii Physiology Department, conducted studies of wedge-tailed shearwaters on Manana Island during the summer of 1977, and will continue next summer. With Charles Paganelli (State University of New York) and Ralph Ackerman (Scripps Institute), Dr. Wittow is investigating incubation physiology and thermal biology of this procellariid. Of particular interest are the properties of eggshell structure as they relate to the long incubation period, and the adaptations (or lack of them) for temperature regulation in a species that avoids thermal extremes by its burrowing habits.

CONSERVATION NEWS--

- (1) Offshore islets: Although proposed regulations to improve protection of several offshore islets have not been signed into effect, it appears that this will happen soon. The regulation has been watered down somewhat in the review process, but will still be an important change in the existing status. Perhaps the most significant fault in the regulation was the last-minute removal of Kaula Islet from the list. The U. S. Navy continues to use this important seabird nesting islet as an aerial bombing target, although the results of several surveys to assess the impacts of bombing have not yet been made to the public.

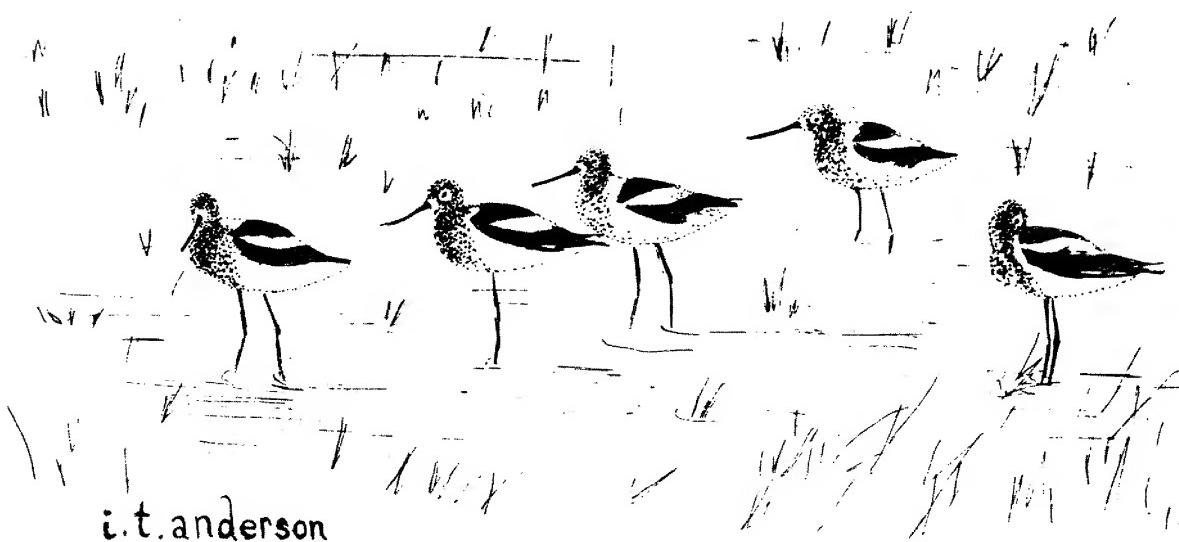
- (2) The first record of Laysan Albatross nesting on the island of Kauai was reported by C. Fred Zeillemaker and C. John Ralph (Elepaio 38:5). Although adult birds have been observed near Kilauea Point during the winter of 1975-76, it was not until February 1977 that an incubating adult bird was found on a hill east of the point. One of the parents was found dead at the nest when the chick was approximately five months old. The chick was force-fed for several days, but succumbed in July after an operation to repair a broken leg.
- (3) White terns (Gygis alba) have been found nesting at several locations throughout Honolulu in recent years. Linda Murakami reported recently (Elepaio 38:6) on one such nest in the center of a densely populated portion of the city. Birds have been reported nesting in a variety of trees on Kahala, Kapiolani Park and Fort DeRussy since the first Oahu nesting record at Koko Head in 1961. Although this species is widespread throughout the Northwestern Islands, there are no reported Main Island colonies other than Kaula Islet.

Robert J. Shallenberger

IX. East Coast, U. S.

Nothing really new to report from the East Coast. Generally, some work is in progress on the use of spoil islands by nesting birds in New Jersey, and there are three renovated sailing vessels spending a lot of time offshore studying marine biology and especially whales. The detailed work on shorebirds feeding and the invertebrates in tidal flats being done by Brian Harrington and the Manomet Bird Observatory is nearing the publishing stage.

William H. Drury



GENERAL NOTES

RESEARCH PLAN FOR THE STUDY OF SEABIRD RESOURCES IN THE NORTHWESTERN HAWAIIAN ISLANDS

by

Robert J. Shallenberger
Ahuimanu Productions
P.O. Box 1166
Kailua, Hawaii 96734

Studies of wildlife resources in the Northwestern Hawaiian Islands were recently initiated in anticipation of a triparty cooperative agreement to be signed between the National Marine Fisheries Service, the State of Hawaii (Department of Land and Natural Resources) and the U. S. Fish and Wildlife Service. The major role of the USF&WS will be in the area of seabird research. I was hired on a temporary appointment in March of 1977 to prepare a research plan for the seabird studies. The major objective of the research will be to provide an adequate data base upon which to evaluate the potential impact of commercial fishing on resident and migratory seabird populations. Effort will be made to define measurable parameters that will permit future monitoring of the relationship between commercial fishing and the condition of seabird resources, and to suggest management alternatives to protect vulnerable seabird species from adverse human impact.

The research plan is divided into 13 separate "work tasks" for the purposes of organization and planning. There is considerable overlap between some work tasks. Accumulated data from past research, particularly that gathered during the Pacific Ocean Biological Survey Program (POBSP), provide an important foundation for this proposed research and make it possible to concentrate effort into the most relevant work tasks. For each of the work tasks, available information and research methodology is reviewed in the research plan.

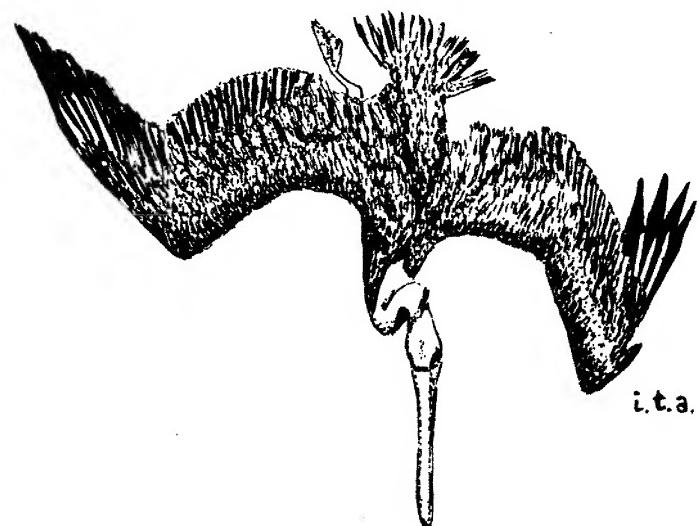
The work tasks identified in the research plan are as follows:

- (1) literature survey,
- (2) patterns of abundance and distribution of Hawaiian seabirds,
- (3) nesting locations and breeding populations of seabirds in the Northwestern Islands,
- (4) breeding cycles and patterns of colony occupation,
- (5) recent and historical trends in seabird productivity,
- (6) natural limiting factors affecting seabird populations,
- (7) man-related influences affecting seabird populations,
- (8) nesting habitat of seabirds and interrelationships of different species,

- (9) impact of human activity at sea on Hawaiian seabirds,
- (10) patterns of food preference and feeding methods,
- (11) abundance and distribution of seabird prey and the role of seabird prey in the marine ecosystem,
- (12) predictive evaluation of commercial fishing activities in the Northwestern Islands, and
- (13) synthesis of data relating to the potential impacts of commercial fishing on seabird resources of the Northwestern Islands.

Alternatives for research program management are presented and discussed in detail within the research plan. A minimum effort could be initiated with some redirection of responsibility and research objectives for existing USF&WS personnel. One or more additional research positions in the USF&WS could be established for the completion of the project. As a third alternative, contracted research by biologists outside the USF&WS could be undertaken. As of the date of this writing, the USF&WS has opted for the second alternative, with the hiring of a wildlife biologist (Craig Harrison) to begin work in 1978. Presumably, if funds for additional personnel become available, the research effort can be expanded at a later date.

The success or failure of this project will be dependent upon the cooperation of other agencies and upon the ability of the USF&WS to overcome logistical problems that have hampered research within the Hawaiian Islands National Wildlife Refuge in past years. Members of the Pacific Seabird Group can provide an important source of information that would aid in further planning, implementation of fieldwork, and interpretation of data for this project.



STATUS OF THE SHORT-TAILED ALBATROSS ON TORISHIMA IN 1976/77

by

Hiroshi Hasegawa
Department of Biology, Faculty of Science
Toho University
Miyama-cho, Funabashi, Chiba 274 Japan

The short-tailed albatross (Diomedea albatrus) is one of the rarest species in existence and is known to breed only on Torishima Island, 580 km south of Tokyo. Its recent status on this island was reported by Tickell (Sea Swallow 23:1-4, 1973) for the 1972/73 season, and by Yamashina and Sanger (PSG Bull. 3(1):8-9, 1976) for the 1973/74 season.

In the 1976/77 season, I was able to visit the island twice to survey the short-tailed albatrosses there. Both visits were brief, but they revealed events that have important and disturbing implications for the conservation of this species. Further details will be reported elsewhere, but some information will be of immediate interest to readers of the PSG Bulletin.

On 17 November 1976, when most pairs were probably at clutches, I observed the breeding colony from about 200 m offshore for half an hour. I was aboard the vessel "Miyako" and the colony site is known as the Tsubame-zaki. The large, white short-tailed shearwaters were very conspicuous against the low vegetation on Tsubame-saki, and I was able to count them fairly accurately by means of binoculars and a hand-counter, supplemented with photographs.

I confirmed that 66 individuals, including both adult-plumaged and probable subadults, were present on the ground and three individuals were flying within sight. Prior to nearing the Tsubame-zaki, I saw two additional short-tailed shearwaters at sea within about 3 km and to the north of the island. Therefore, at least 70 individuals were probably attending the Torishima colony at the beginning of the 1976/77 breeding season.

Throughout the voyage from the Smith's Island via Torishima to the Ogasawara Islands, I kept a constant watch for seabirds, but no other short-tailed albatrosses were seen.

From 20 to 22 March 1977, I landed and camped on Torishima with five other persons, with aid and support from the "Miyako." During that time, I visited the breeding colony by walking along the coast from our camp site at the meteorological station to the Tsubame-saki. I confirmed 15 well-grown chicks (all of which were banded) and four dead chicks in the nesting area. I also found three dead subadult birds, one apparently killed by a predator within a few days of my visit. The other two were decomposed to bony skeletons, and they had been banded by Tickell (pers. comm.) as fledglings in May of 1973.

I was unable to obtain reliable estimates of the number of adult birds on my second visit to the island, but afterwards on 25 March, I simultaneously observed 71 individuals offshore from the Tsubame-saki, in flight, and on the ground there. On 26 March we circumnavigated the island and searched carefully for other breeding sites, but none were found.

Since it is not yet known whether individuals of the species breed annually or less frequently, nor what the magnitude of breeding success has been in recent years, I am unable to estimate accurately the population size of the short-tailed albatross on the basis of my present observations. Regarding the sight counts at the breeding colony (provided that they are an index to the size of the breeding population), the population seems to have been increasing very slowly and steadily (cf. Sanger, PSG Bull. 3(2):36, 1976).

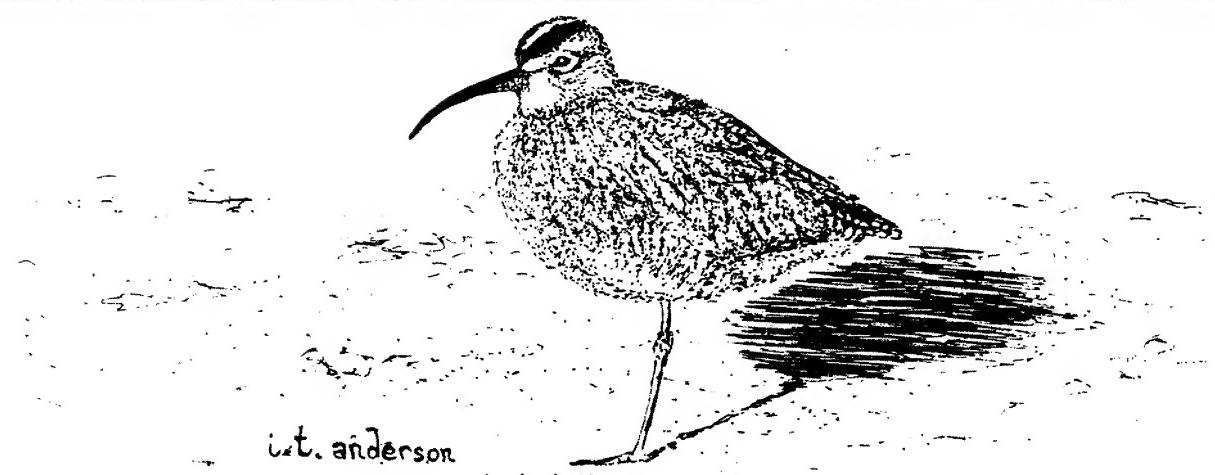
It is important to note, however, that compared to Tickell's (*op. cit.*) observation of 24 fledglings in May 1973, the reproductive success in terms of fledgling production is low in recent years. Only 11 growing chicks were confirmed in February 1974 and 15 well-grown chicks last season. This is roughly the level of the early 1960s (cf. Fujisawa, pers. comm., 1967). The dead chicks that I found were so destroyed that I could not diagnose the cause of death.

During the last decade, a gradual change in vegetation appears to have taken place on the Tsubame-saki. The overall area covered with plants remains the same, but Crysanthemum pacificus has become dominant over the taller Misanthus sinensis v. condensatus. Accordingly, the vegetation has become shorter in recent years. Perhaps in response to this change, the short-tailed albatrosses have shifted their major nesting colony slightly on the slope from the east to the west. On the east side of the nesting area, the tall grass M. sinensis did not grow and the chicks were scattered. On the west end, where the vegetation was completely removed by the heavy utilization of the albatrosses, smaller chicks were found sitting close to the edges of the vegetation. This may indicate that certain vegetation characteristics might improve the reproductive success of the short-tailed albatross.

On Torishima, another species, the black-footed albatross (D. nigripes), is breeding near the short-tail albatross colony. I confirmed 126 chicks of this species. Since Tickell (pers. comm.) observed 50 chicks in May of 1973, the black-footed albatross may have increased on the island. In any case, it has not expanded its nesting into the area of the short-tailed albatross, so it seem apparent that there still remains ample nesting space for both species, albeit less favorable for the short-tails.

At the breeding colony I did not detect any indications of the presence of terrestrial predators; however, the presence of cats and rats on Torishima is of great potential concern. Detailed studies are needed to determine the factors that affect reproductive success, the effects of vegetation on it, and the possibility of predator damage. Once these are understood, hopefully the reproductive output of the short-tailed albatross can be effectively improved.

I thank Captain Isamu Aomuna and all of the crew members of the "Miyako" for transporting me to Torishima and for their kindness. I thank also M. Sumiya, K. Kikuchi, T. Yamamoto, T. Nakayama, and H. Chiba all of the Hachijye Regional Office of the Tokyo Metropolitan Government. I am also grateful to Dr. W. L. N. Tickell for his helpful advice and encouragement, and to other persons who helped in various ways.



A REVIEW OF FIELD GUIDES FOR USE IN THE NORTH AND CENTRAL PACIFIC

by

David G. Ainley
Pt. Reyes Bird Observatory
Box 8, Alder Road
Bolinas, California 94924

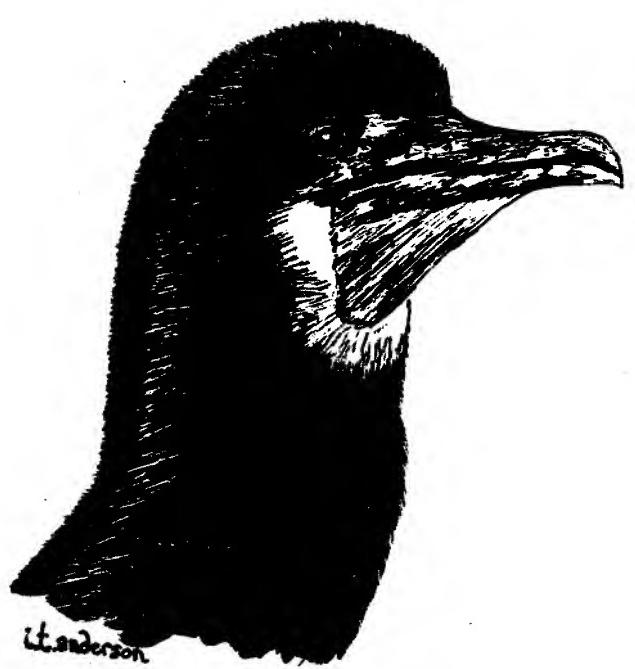
Having had an opportunity recently to travel by ship from Panama (8° N) to Ross Island (78° S), I thought it might be valuable to share my experiences with various field guides. Hopefully, my review will perhaps save one or more of you from transporting too many books on a cruise someday.

By far the most useful book was that by Harper and Kinsky (Guide to New Zealand Albatrosses and Petrels). This book was obviously born from field experience, a trait one does not always find in a field guide. This book expends very little wordage discussing characteristics of birds observable only in museums. It is well organized on the basis of field characteristics, discusses ways in which a particular species might be confused with others, and it is very well illustrated. Since the book's geographic coverage runs from subtropical to Antarctic waters, since most southern hemisphere Procellariiformes are circumpolar, and since a large proportion of southern hemisphere pelagic birds are Procellariiformes, any observer travelling to any pelagic waters south of the tropics should have a copy of this book along. How can one go wrong for only \$2.50?

Another very useful book still was none other than Alexander's Birds of the Ocean. The major drawbacks were the ancient nomenclature and the author's propensity for splitting groups of birds to the utmost degree. But once these drawbacks are surmounted, the book proves to be quite useful. It basically and clearly states species' characteristics recognizable from a distance at sea. The book of course includes all groups of seabirds.

Finally, the other most useful book was King's Seabirds of the Tropical Pacific. The keys were very good for birds other than gadfly petrels. The copy used by me and Bob Boekelheide had all the illustrations missing, and thus the keys were put to a good test. Perhaps if the illustrations had been present, King's book would have been more helpful with the petrels. We will use a complete version on our next trip.

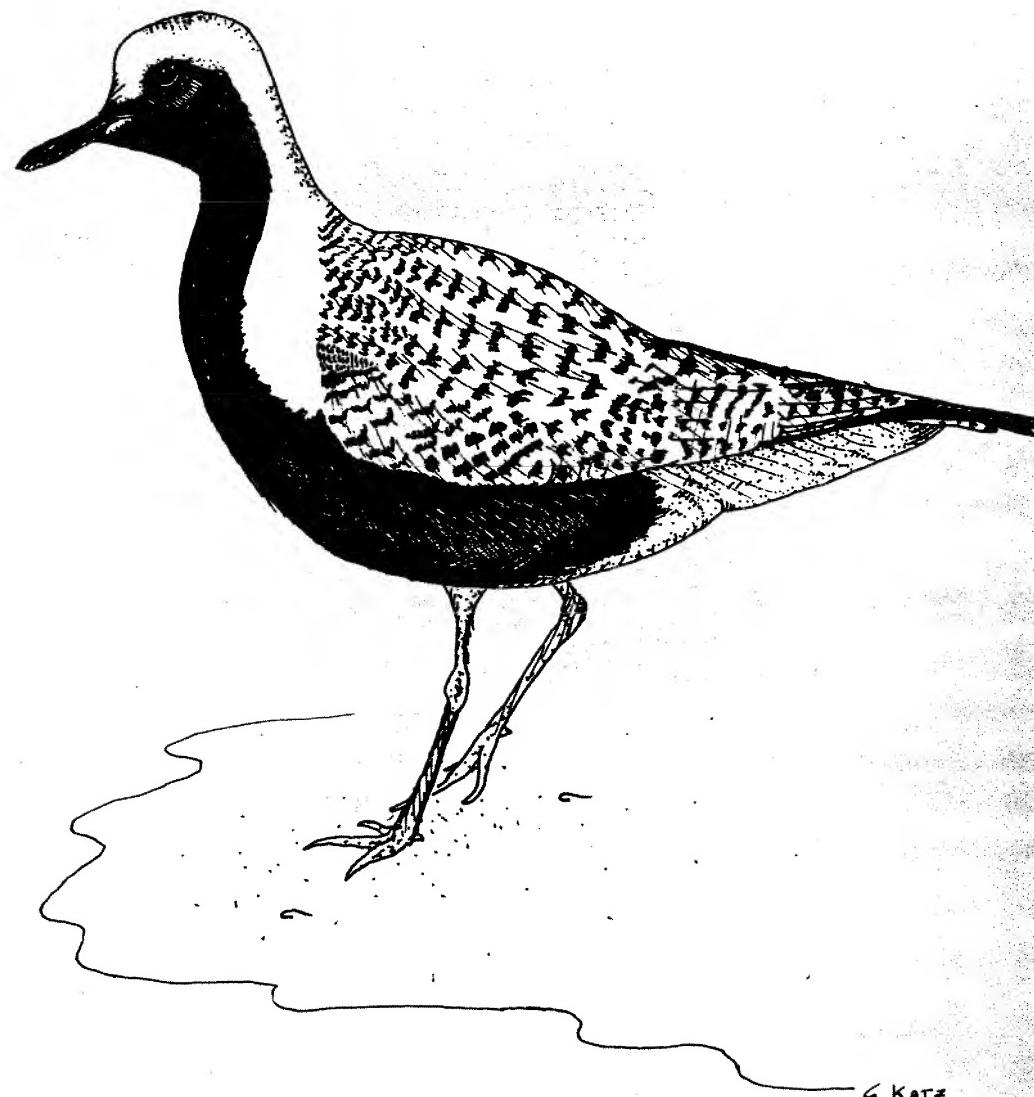
Other books that we used were: Murphy's Oceanic Birds of South America; Watson's Birds of the Antarctic and Sub-Antarctic; Serventy, Serventy, and Warham Handbook of Australian Seabirds; Harris' Field Guide to the Birds of the Galapagos; and Falla, Sibson, and Turbot A Field Guide to the Birds of New Zealand. Although the first of these three provide a wealth of natural history information, I advise consulting them before or after a trip, as they served little use as field guides. Of the three, only Watson's book was intended for field work (not entirely, however). It, however is based too much on museum characteristics and illustrations, particularly since all-important size relationships are not clear. Falla et al. offered some help on prions (a very difficult group), as did Watson. Harris' field guide was not of much use in pelagic waters near the Galapagos and it seems more centered on the land birds of these islands.



EDITOR'S NOTES: I am grateful to Irene T. Anderson and Sue Katz for again providing illustrative materials for this bulletin. I am also grateful to Sue Granger for additional assistance.

The PSG Bulletin solicits help (typing, artistry, etc.) for future bulletins. We can offer free PSG memberships to those who aid significantly in producing the PSG Bulletin.

Daniel W. Anderson
Editor
December 1977



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS
AND THEIR ENVIRONMENT

EXECUTIVE COUNCIL
1977

Chairman: David A. Manuwal, College of Forest Resources,
University of Washington, Seattle, Washington 98195.

Vice-Chairman: Wayne Hoffman, Department of Biology, University
of South Florida, Tampa Bay, Florida 33620.

Secretary: Kees Vermeer, Canadian Wildlife Service, 5421
Robertson Road, Delta, British Columbia V4K 3N2.

Acting Treasurer: David A. Manuwal, College of Forest Resources,
University of Washington, Seattle, Washington 98195.

Other Council Members:

David G. Ainley, Pt. Reyes Bird Observatory, Box 8, Alder
Road, Bolinas, California 94924.

William H. Drury, College of the Atlantic, Bar Harbor,
Maine 04609.

Joseph R. Jehl, Jr., Hubbs-SeaWorld Research Institute, 1700
South Shores Rd., Mission Bay, San Diego, California 92109.

C. Eugene Knoder, National Audubon Society, 9250 West 5th
Avenue, Lakewood, Colorado 80226.

Lora Lynn Leschner, Washington Department of Game, Route 4,
Box 171, The Dalles, Oregon 97058(Acting Washington Rep.).

Harou Ogi, Research Institute of North Pacific Fisheries,
Faculty of Fisheries, Hokkaido University, Hakodate, Hok-
kaido 040 Japan.

Douglas Schamel, Department of Wildlife Management, University
of Alaska, Fairbanks, Alaska 99701.

Robert J. Shallenberger, Ahuimanu Productions, P. O. Box
1166, Kailua, Oahu, Hawaii 96734.

Bernardo Villa-Ramirez, Universidad Nacional Autonoma de Mexico,
Laboratorio de Mastozoologia, Apartado Postal 70-233,
Mexico 20, D.F., Mexico.

Editor, PSG Bulletin: Daniel W. Anderson, Department of Wildlife and
Fisheries Biology, University of California, Davis,
California 95616.